THE ROTATIONAL SPECTRUM OF THE UREA···ISOCYANIC ACID COMPLEX

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A dimer of urea and isocyanic acid has been generated and observed in the gas phase. The complex was generated by laser vaporisation of a rod target containing urea and copper in a 1:1 ratio, then cooled in a supersonic expansion. Six isotopologues of the complex have been characterised using a chirped pulse Fourier-transform microwave spectrometer in the frequency range 6.5-18.5 GHz. The spectra have been fitted to the Hamiltonian for an asymmetric rotor using PGOPHER. Data obtained from the ^{13}C and ^{15}N isotopologues confirms that all nitrogen atoms are close to the a intertial axis while the carbon atoms are not. A tentative structure will be presented.